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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7906-4 (1987): Helical compression springs, Part 4:
Selection of standard cold coiled springs made from
circular section wire and bar [TED 21: Spring]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

Invent a New India Using Knowledge



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

HELICAL COMPRESSION SPRINGS

PART 4 SELECTION OF STANDARD COLD COILED SPRINGS MADE FROM CIRCULAR SECTION WIRE AND BAR

1. Scope — Covers the various parameters of the cold coiled compression spring of different sizes for the selection of designer and the user.

2. Terminology — Following symbols and units shall apply (see Fig. 1).

D_e = outside coil diameter in mm

d = wire or rod diameter before coiling into spring in mm

L_o = length of unloaded spring in mm

F_n = spring force correlated to the smallest permissible spring length L_n (taking into consideration S_a) in N.

$L_n = L_c + S_a$ = minimum permissible test length in mm

L_c = block length of spring (all coil closed) in mm

S_a = sum of the minimum gap between the individual effective coils for spring length L_n in mm

R = spring rate in N/mm

3. Dimensions and Designation

3.1 Dimensions shall be as given in Table 1.

3.2 Designation — Compression spring with wire dia d = 0.20 mm, outside diameter D_e = 2.24 and length L_o = 3 mm shall be designated as:

Compression Spring 0.20 × 2.24 × 3 – IS : 7906 (Part 4)

4. Material — Spring steel wire conforming to Grade 2 of IS : 4454 (Part 1)-1981 'Specification for steel wires for cold formed springs: Part 1 Patented and cold drawn steel wires — unalloyed (second revision)', shall be used. If long life is required, superior material to be used.

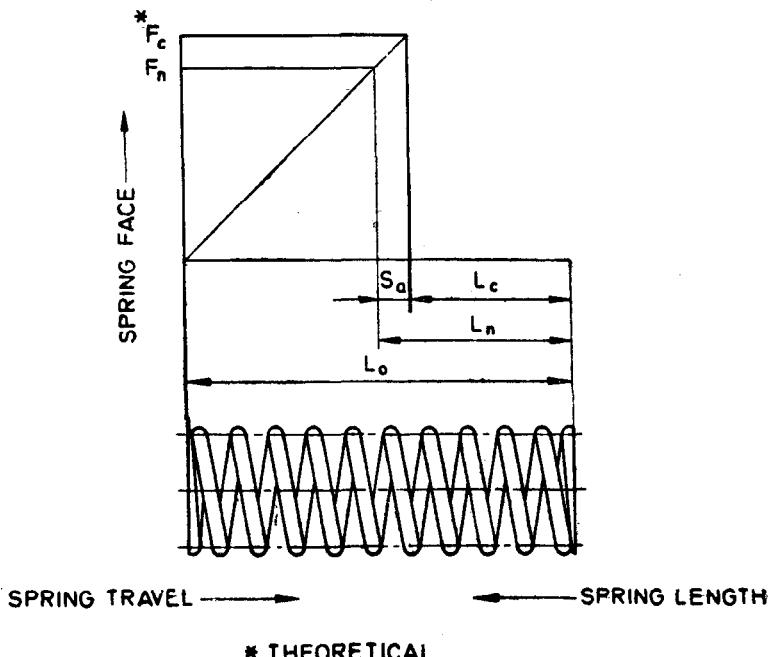


FIG. 1 THEORETICAL COMPRESSION SPRING DIAGRAM

TABLE 1 DIMENSIONS OF COMPRESSION SPRING

(Clause 3.1)

Sl No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
1	0.20	0.20	3.0	1.68	1.50	1.09	1.09
2			4.8		2.16	1.40	0.68
3			6.4		2.74	1.62	0.45
4			7.9		3.28	1.85	0.37
5			9.6		3.81	2.13	0.29
6			11.2		4.47	2.34	0.26
7			12.7		4.95	2.56	0.23
8			14.2		5.61	2.92	0.20
9	2.24*	0.25	3.0	2.66	1.73	1.51	2.16
10			4.8		2.64	2.06	1.19
11			6.4		3.30	2.49	0.87
12			7.9		4.06	3.00	0.67
13			9.6		4.78	3.30	0.58
14			11.2		5.46	3.73	0.49
15			12.7		6.22	4.37	0.40
16			14.2		6.88	4.70	0.37
17			15.8		7.52	5.10	0.33
18		0.30	3.0	4.75	1.95	1.90	4.30
19			4.8		2.97	2.54	2.54
20			6.4		3.76	3.12	1.84
21			7.9		4.60	3.76	1.40
22			9.6		5.49	4.37	1.14
23			11.2		6.22	4.85	1.0
24			12.7		7.06	5.46	0.86
25			14.2		7.92	5.97	0.77
26	0.36	0.30	15.8	5.5	8.76	6.73	0.67
27			19.0		10.72	7.40	0.57
28			6.4		3.50	2.57	1.92
29			7.9		4.25	2.98	1.51
30			9.6		5.13	3.45	1.22
31			11.2		5.88	3.86	1.04
32			12.7		6.63	4.26	0.90
33			14.2		7.39	4.67	0.80
34	0.40	0.36	15.8	8.2	8.14	5.08	0.72
35			17.5		9.02	5.55	0.65
36			19.0		9.77	5.96	0.59
37			20.6		10.52	6.36	0.55
38		0.40	22.4		11.40	6.84	0.50
39			23.9		12.15	7.24	0.47
40			25.4		12.91	7.65	0.44
41			28.4		14.41	8.46	0.39
42			31.8		16.04	9.34	0.35
43			6.4		3.68	3.02	3.06
44			7.9		4.55	3.53	2.45
45			9.6		5.51	4.14	1.96
46	0.45	0.40	11.2	8.2	6.25	4.75	1.67
47			12.7		7.11	5.28	1.45
48			14.2		7.82	5.87	1.28
49			15.8		8.69	6.38	1.16
50			17.5		9.52	7.14	1.02
51			19.0		10.26	7.70	0.93
52			25.4		14.22	9.60	0.72

*Unground

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

Sl No.	D_o mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
53		0.40	28.4		15.88	10.64	0.64
54		0.40	31.8	8.2	17.68	11.76	0.57
55			6.4		4.04	3.53	4.94
56			7.9		4.90	4.22	3.83
57			9.6		6.02	4.93	3.14
58			11.2		6.88	5.59	2.66
59			12.7		7.75	6.30	2.30
60		0.45	14.2		8.53	7.09	2.00
61		0.45	15.8		9.60	7.54	1.85
62		0.45	17.5		10.52	8.43	1.63
63		0.45	19.0		11.38	9.12	1.49
64		0.45	25.4		15.53	11.55	1.12
65		0.45	28.4		17.35	12.82	0.99
66		0.45	31.8		19.32	14.20	0.89
67		0.45	38.1		23.11	16.84	0.74
68			6.4		4.47	4.13	7.85
69			7.9		5.46	4.88	6.10
70			9.6		6.61	5.75	4.85
71			11.2		7.59	6.49	4.12
72			12.7		8.58	7.24	3.58
73		0.50	14.2		9.57	7.98	3.17
74		0.50	15.8		10.56	8.73	2.84
75		0.50	17.5		11.71	9.60	2.53
76		0.50	19.0		12.69	10.35	2.30
77		0.50	20.6		13.68	11.09	2.14
78			22.4		14.83	11.96	1.96
79			23.9		15.82	12.71	1.83
80			25.4		16.81	13.45	1.72
81			28.4		18.78	14.94	1.52
82			31.8		20.92	16.56	1.36
83			38.1		25.03	19.66	1.13
84			6.4		4.75	4.34	12.4
85			7.9		5.74	5.31	9.4
86			9.6		6.91	6.40	7.3
87			11.2		8.05	7.11	6.4
88			12.7		9.04	8.10	5.4
89		0.56	14.2		10.18	8.79	4.95
90		0.56	15.8		11.18	9.75	4.46
91		0.56	17.5		12.34	11.23	3.70
92		0.56	19.0		13.41	11.71	3.54
93		0.56	20.6		14.48	12.55	3.28
94			23.9		16.94	14.38	2.76
95			25.4		18.00	15.23	2.58
96			28.4		20.12	16.93	2.39
97			31.8		22.41	18.78	2.05
98			38.1		26.83	22.32	1.70
99		0.53	6.4		4.11	3.64	6.25
100		0.53	7.9		4.99	4.23	4.85
101		0.53	9.6		6.01	4.91	3.84
102		0.53	11.2		6.89	5.50	3.26
103		0.53	12.7		7.77	6.00	2.84
104		0.53	14.2		8.65	6.68	2.51
105		0.53	15.8		9.53	7.27	2.24
106		0.53	17.5		10.55	7.95	2.01
107		0.53	19.0		11.43	8.54	1.83
108		0.53	20.6		12.31	9.13	1.70

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
109	3.76	0.53	22.4	15	13.33	9.82	1.55
110			23.9		14.21	10.40	1.45
111			25.4		15.00	10.99	1.35
112		0.56	6.4	18	4.37	4.07	9.1
113			7.9		5.32	4.75	7.0
114			9.6		6.41	5.54	5.6
115			11.2		7.36	6.23	4.70
116			12.7		8.30	6.91	4.10
117			14.2		9.24	7.59	3.60
118			15.8		10.18	8.27	3.24
119			17.5		11.28	9.06	2.86
120			19.0		12.23	9.74	2.64
121			20.6		13.17	10.43	2.43
122	0.40	0.40	22.4	5.55	14.27	11.22	2.22
123			23.9		15.21	11.90	2.08
124			25.4		18.78	15.28	1.94
125			6.4		2.77	2.03	1.56
126			7.9		3.36	2.21	1.31
127		0.45	9.6	7.8	4.29	2.54	1.03
128			11.2		4.75	2.84	0.86
129			12.7		5.21	3.15	0.74
130			14.2		5.66	3.45	0.65
131			15.8		6.45	3.66	0.60
132	4.57	0.45	17.5	7.8	7.19	3.94	0.54
133			19.0		7.62	4.24	0.49
134			22.4		9.89	4.70	0.44
135			25.4		11.18	5.19	0.38
136			31.8		13.85	6.22	0.30
137		0.50	35.0	10.2	15.24	6.75	0.28
138			38.1		16.53	7.24	0.25
139			6.4		3.05	2.39	2.36
140			7.9		3.96	2.62	2.00
141			9.6		4.83	2.95	1.63
142	0.50	0.45	11.2	7.8	5.46	3.30	1.36
143			12.7		6.07	3.66	1.18
144			14.2		6.40	4.11	1.00
145			15.8		7.01	4.44	0.89
146			17.5		7.87	4.80	0.80
147			19.0		8.20	5.26	0.72
148			22.4		10.60	5.77	0.65
149			25.4		11.97	6.40	0.57
150			31.8		14.84	7.70	0.45
151			35.0		16.33	8.36	0.40
152			38.1		17.71	9.01	0.37
153	0.50	0.50	6.4	10.2	2.9	2.51	3.47
154			7.9		3.27	2.80	2.89
155			9.6		3.96	3.35	2.21
156			11.2		4.53	3.80	1.85
157			12.7		5.04	4.20	1.61
158			14.2		5.54	4.60	1.43
159			15.8		6.11	5.05	1.27
160		0.50	17.5	10.2	6.67	5.49	1.14
161			19.0		7.17	5.89	1.05
162			22.4		8.36	6.83	0.88
163			25.4		9.38	7.63	0.77
164			31.8		11.58	9.37	0.61
165			35.0		12.64	10.21	0.55
166			38.1		13.71	11.06	0.51

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

Sl No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
167			6.4		3.66	3.07	5.17
168			7.9		4.52	3.48	4.15
169			9.6		5.64	3.91	3.47
170			11.2		6.48	4.32	2.96
171			12.7		7.11	4.88	2.49
172			14.2		7.52	5.56	2.08
173			15.8		8.28	6.12	1.84
174		0.56	17.5	13.9	9.27	6.58	1.68
175			19.0		9.88	7.11	1.52
176			20.8		10.29	7.85	1.35
177			23.9		12.92	8.55	1.22
178			25.4		13.71	9.01	1.14
179			28.4		15.29	9.93	1.01
180			31.8		17.00	10.93	0.90
181			38.1		20.29	12.85	0.75
182			6.4		4.06	3.64	7.40
183			7.9		4.90	4.18	5.70
184			9.6		5.89	4.81	4.50
185			11.2		6.73	5.34	3.82
186		0.60	12.7	17.0	7.57	5.88	3.30
187			14.2		8.42	6.42	2.92
188			15.8		9.26	6.96	2.62
189			19.0		11.09	8.12	2.13
190			22.4		12.92	9.29	1.79
191			25.4		14.60	10.36	1.57
192			28.4		16.29	11.44	1.39
193	4.57		31.8		18.12	12.61	1.25
194			38.1		21.63	14.85	1.03
195			44.4		25.15	17.09	0.88
196			50.8		28.66	19.33	0.76
197			6.4		4.14	3.78	10.1
198			7.9		5.16	4.27	8.2
199			9.6		6.25	4.25	6.6
200			11.2		7.09	5.61	5.45
201			12.7		7.92	6.27	4.68
202			14.2		8.79	6.91	4.12
203			15.8		9.63	7.57	3.66
204			17.5		10.72	8.23	3.29
205		0.65	19.0	22.4	11.56	8.94	2.98
206			20.6		12.40	9.58	2.72
207			22.4		13.51	10.24	2.52
208			25.4		15.50	11.71	2.14
209			28.4		17.29	12.94	1.90
210			31.8		19.24	14.27	1.70
211			38.1		22.97	16.84	1.40
212			44.4		26.71	19.41	1.20
213			50.8		30.45	21.97	1.04
214			7.9		5.57	5.28	12.4
215			9.6		6.71	6.13	7.90
216			11.2		7.69	6.86	8.2
217			12.7		8.66	7.59	7.1
218		0.75	14.2		9.64	8.32	6.2
219			15.8	28.5	10.62	9.05	5.6
220			17.5		11.75	9.90	4.95
221			19.0		12.73	10.63	4.52
222			20.6		13.71	11.36	4.16
223			22.4		14.85	12.21	3.80

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
224	0.75	4.57	23.9	28.5	15.82	12.94	3.55
225			25.4		16.00	13.67	3.32
226			28.4		18.75	15.13	2.95
227			31.8		20.86	16.71	2.63
228			35.0		22.98	18.29	2.37
229			38.1		24.93	19.75	2.17
230			44.4		29.00	22.79	1.85
231			50.8		33.07	25.83	1.61
232			7.9		6.04	5.23	21.5
233			9.6		7.34	6.10	17.0
234	0.80	5.33	11.2	39.2	8.28	7.11	13.6
235			12.7		9.24	8.10	11.4
236			14.2		10.41	8.71	10.3
237			15.8		11.38	9.70	9.0
238			17.5		12.80	10.31	8.3
239			19.0		13.61	11.58	7.2
240			20.6		14.55	12.60	6.5
241			22.4		15.65	13.79	5.9
242			23.9		16.71	14.63	5.5
243			25.4		17.78	15.44	5.2
244	0.56	6.10	28.4	11.5	20.11	17.18	4.50
245			31.8		22.39	19.00	4.00
246			35.0		24.67	20.81	3.50
247			38.1		26.77	22.49	3.30
248			44.4		31.15	25.98	2.82
249			50.8		35.52	29.47	2.45
250			9.6		5.11	3.63	2.54
251			11.2		5.82	3.98	2.16
252			12.7		6.54	4.33	1.87
253			14.2		7.25	4.68	1.66
254	0.65	0.50	15.8	18.4	7.96	5.02	1.48
255			17.5		8.80	5.43	1.32
256			19.0		9.51	5.78	1.20
257			20.6		10.22	6.13	1.12
258			22.4		11.05	6.54	1.02
259			25.4		12.48	7.23	0.89
260			31.8		15.45	8.69	0.71
261			38.1		18.42	10.14	0.59
262			9.6		5.71	4.60	4.67
263			11.2		6.51	5.07	3.94
264	0.65	0.50	12.7	18.4	7.31	5.55	3.42
265			14.2		8.12	6.03	3.01
266			15.8		8.92	6.51	2.70
267			17.5		9.86	7.07	2.39
268			19.0		10.66	7.55	2.19
269			20.6		11.46	8.02	2.02
270			22.4		12.40	8.58	1.84
271			25.4		14.00	9.54	1.62
272			31.8		17.34	11.53	1.28
273			38.1		20.69	13.53	1.06
274	6.10	0.50	6.4	7.8	3.21	2.30	2.47
275			7.9		3.83	2.52	1.92
276			9.6		4.56	2.78	1.53
277			11.2		5.19	3.01	1.29
278			12.7		5.61	3.23	1.13
279	6.10	0.50	14.2	7.8	6.44	3.45	1.00
280			15.8		7.07	3.67	0.89

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
281	0.50		17.5	7.8	7.80	3.93	0.79
282			19.0		8.42	4.15	0.74
283			20.6		9.05	4.38	0.69
284			22.4		9.78	4.64	0.62
285			25.4		11.03	5.08	0.54
286			31.8		13.64	6.01	0.43
287			38.1		16.24	6.93	0.35
288			44.4		18.85	7.86	0.30
289			50.8		21.46	8.78	0.26
290			6.4		3.23	2.61	2.42
291	0.56		7.9	10.6	3.86	2.88	2.65
292			9.6		4.72	2.92	2.16
293			11.2		4.90	3.33	1.69
294			12.7		5.54	3.61	1.49
295			14.2		6.15	3.91	1.31
296			15.8		6.78	4.16	1.19
297			17.5		7.67	4.44	1.09
298			19.0		8.30	4.78	0.98
299			20.6		8.94	5.03	0.91
300			25.4		11.62	5.99	0.74
301	6.10		31.8	13.0	14.37	7.12	0.59
302			38.1		17.11	8.25	0.48
303			44.4		19.86	9.37	0.41
304			50.8		22.61	10.50	0.36
305			9.6		5.07	3.61	2.83
306			11.2		5.76	3.94	2.39
307			12.7		6.46	4.26	2.08
308			14.2		7.15	4.58	1.83
309			15.8		7.85	4.91	1.64
310			17.53		8.66	5.28	1.46
311	0.60		19.05	17.01	9.35	5.60	1.33
312			20.57		10.05	5.93	1.24
313			22.35		10.86	6.00	1.13
314			31.75		15.14	8.29	0.78
315			38.10		19.04	9.64	0.65
316			44.45		20.94	10.98	0.55
317			50.80		23.83	12.33	0.48
318			9.65		5.46	3.63	4.07
319			11.18		6.27	3.96	3.48
320			12.70		7.09	4.29	3.05
321	0.65		14.22	17.01	7.57	4.78	2.57
322			15.75		8.05	5.28	2.21
323			17.53		8.76	5.79	1.94
324			19.05		9.24	6.25	1.74
325			20.57		10.06	6.60	1.63
326			22.35		10.80	7.14	1.47
327			22.40		12.90	7.95	1.30
328			31.75		15.96	9.52	1.03
329			38.10		19.01	11.09	0.85
330			44.45		22.06	12.67	0.73
331			50.80		25.12	14.24	0.63
332	0.75		9.65	22.0	5.73	4.70	5.6
333			11.18		6.52	5.16	4.72
334			12.70		9.31	5.62	4.08

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_h mm	L_c mm	R N/mm
335			14.22		8.10	6.09	3.60
336			15.75		8.89	6.65	3.22
337			17.53		9.82	7.09	2.86
338			19.05		10.61	7.56	2.61
339			20.57		11.40	8.02	2.40
340			22.35		12.33	9.56	2.30
341		0.75	23.68	22.0	13.12	9.02	2.05
342			25.40		13.91	9.49	1.92
343			28.45		15.50	10.42	1.71
344			31.75		17.21	11.42	1.52
345			35.05		18.93	12.42	1.36
346			38.10		20.52	13.55	1.26
347			44.4		23.82	15.28	1.07
348			50.8		27.12	17.21	0.93
349			7.9		5.13	4.24	11.2
350			9.6		6.40	4.67	9.4
351			11.2		7.16	5.31	7.6
352			12.7		7.95	5.89	6.4
353			14.2		8.74	6.84	5.6
354		0.80	15.8		9.50	7.09	4.9
355			17.5		10.52	7.70	4.38
356			19.0	30.6	11.05	8.51	3.84
357			20.6		11.84	9.12	3.50
358			22.4		12.85	9.75	3.22
359			23.9		13.64	10.84	3.00
360			25.4		14.40	10.95	2.79
361			31.8		18.49	13.35	2.19
362			35.0		20.34	14.55	1.97
363			38.1		22.05	15.65	1.80
364			44.4		25.60	17.95	1.54
365			50.8		29.16	20.25	1.34
366			7.9		5.44	5.23	15.2
367			9.6		6.50	5.98	11.8
368			11.2		7.42	6.62	9.8
369			12.7		8.63	7.26	8.5
370			14.2		9.25	7.90	7.5
371		0.90	15.8		10.16	8.54	6.6
372			17.5		11.23	9.28	5.9
373			19.0	37.1	12.14	9.93	5.4
374			20.6		13.05	10.57	4.94
375			22.4		14.12	11.31	4.52
376			23.9		15.04	11.95	4.20
377			25.4		15.95	12.59	3.93
378			31.8		19.76	15.26	3.10
379			35.0		21.74	16.65	2.79
380			38.1		23.57	17.93	2.55
381			44.4		27.38	20.60	2.18
382			50.8		31.19	23.27	1.89
383			57.2		35.00	25.94	1.68
384			63.5		38.81	28.60	1.50
385		0.95	7.9		5.66	5.28	22.1
386			9.6		6.88	6.02	17.8
387			11.2	49.1	7.85	6.73	14.8
388			12.7		8.81	7.47	12.7
389			14.2		9.78	8.20	11.1

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

Sl No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
390	0.95	0.95	15.8	49.1	10.77	8.89	9.8
391			17.5		11.99	9.63	8.9
392			19.0		12.95	10.34	8.1
393			20.6		13.92	11.08	7.4
394			22.4		14.96	12.04	6.7
395			23.9		15.75	12.98	6.1
396			25.4		16.71	13.74	5.7
397			28.4		18.67	15.16	5.0
398			31.8		20.85	16.59	4.52
399			35.0		23.04	18.06	4.10
400	1.00	1.00	38.1	53.5	24.99	19.51	3.74
401			44.4		29.10	23.17	3.03
402			50.8		33.16	26.20	2.64
403			57.2		37.22	29.23	2.33
404			63.5		41.28	32.26	2.09
405			7.9		5.91	6.05	27.3
406			9.6		7.09	6.96	20.9
407			11.2		8.11	7.74	17.4
408			12.7		9.12	8.53	15.0
409			14.2		10.13	9.31	13.1
410	6.10	6.10	15.8	64	11.14	10.09	11.6
411			17.5		12.32	11.00	10.3
412			19.0		13.34	11.79	9.4
413			20.6		14.35	12.57	8.6
414			22.4		15.53	13.48	7.8
415			23.9		16.54	14.26	7.3
416			25.4		17.56	15.03	6.8
417			28.4		17.58	16.61	6.0
418			31.8		21.77	18.31	5.4
419			35.0		23.97	20.00	4.82
420	1.05	1.05	38.1	64	25.99	21.57	4.43
421			44.4		30.21	24.83	3.76
422			50.8		34.43	28.09	3.26
423			57.2		38.65	31.35	2.89
424			63.5		42.86	34.61	2.59
425			9.6		7.26	6.91	26.4
426			11.2		8.20	7.87	21.5
427			12.7		9.27	8.71	18.6
428			14.2		10.39	9.47	16.5
429			15.8		11.40	10.18	14.8
430	7.62	0.56	17.5	8.6	12.72	11.20	13.1
431			19.0		13.38	12.67	11.2
432			20.6		14.45	13.34	10.5
433			22.4		15.77	14.12	9.8
434			23.9		16.69	15.24	8.9
435			25.4		17.75	16.03	8.4
436			28.4		19.89	17.75	7.4
437			31.8		22.05	19.76	6.6
438			35.0		24.33	21.51	5.9
439			38.1		25.86	23.70	5.3
440			44.4		31.27	26.42	4.65
441			50.8		35.64	29.90	4.03
442			57.2		40.02	33.39	3.57
443			63.5		44.39	36.87	3.20
444			9.6		4.19	2.65	1.57
445			11.2		4.72	2.83	1.33

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

Sl No.	D_o mm	d mm	L_o mm	F_o N	L_n mm	L_c mm	R N/mm
446			12.7		5.21	2.77	1.16
447			14.2		5.97	2.92	1.03
448			15.8		6.02	3.20	0.87
449			17.5		7.04	3.33	0.82
450			19.0		7.06	3.61	0.72
451		0.56	20.6	8.6	7.85	3.78	0.67
452			22.4		8.86	3.91	0.63
453			25.4		10.56	4.45	0.55
454			31.8		13.03	5.18	0.44
455			38.1		15.50	5.90	0.36
456			44.4		17.97	6.63	0.31
457			50.8		20.44	7.35	0.27
458			11.2		5.23	3.30	2.33
459			12.7		5.56	3.63	1.94
460			14.2		6.50	3.76	1.80
461			15.8		6.83	4.11	1.56
462			17.5		7.42	4.47	1.36
463			19.0		8.35	4.62	1.29
464			20.6		8.69	4.93	1.18
465		0.65	22.4	13.8	9.27	5.23	1.07
466			23.9		9.60	5.64	0.97
467			25.4		9.93	5.94	0.89
468			31.8		14.16	6.92	0.74
469			38.1		16.84	7.95	0.62
470			44.4		19.52	8.98	0.53
471			50.8		22.00	10.01	0.46
472	7.62		11.2		5.96	4.38	3.76
473			12.7		6.66	4.71	3.26
474			14.2		7.36	5.04	2.86
475			15.8		8.06	5.37	2.56
476			17.5		8.88	5.76	2.27
477			19.0		9.58	6.09	2.08
478			20.6		10.28	6.42	1.91
479		0.75	22.4	19.6	11.10	6.81	1.74
480			23.9		11.80	7.14	1.63
481			25.4		12.50	7.47	1.52
482			31.0		15.42	8.84	1.21
483			38.1		18.34	10.22	0.99
484			44.4		21.26	11.60	0.84
485			50.8		24.18	12.98	0.73
486			11.2		5.95	4.44	4.80
487			12.7		6.68	4.83	4.13
488			14.2		7.26	5.28	3.57
489			15.8		7.92	5.66	3.19
490			17.5		8.84	6.10	2.85
491			19.0		9.50	6.48	2.61
492			20.6		10.16	6.91	2.38
493		0.80	22.4	25.2	11.05	7.29	2.21
494			23.9		11.28	7.90	1.98
495			25.4		11.94	8.28	1.85
496			31.8		16.08	9.85	1.50
497			38.1		19.13	11.42	1.24
498			44.4		22.18	12.98	1.06
499			50.8		25.22	14.54	0.92

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

SI No.	<i>D_e</i> mm	<i>d</i> mm	<i>L_o</i> mm	<i>F_n</i> N	<i>L_n</i> mm	<i>L_c</i> mm	<i>R</i> N/mm
500	0.95	0.95	9.6	40	6.10	5.00	11.3
501			11.2		6.88	5.54	9.4
502			12.7		7.75	6.02	8.1
503			14.2		8.30	6.73	6.8
504			15.8		9.17	7.21	6.1
505			17.5		9.96	7.95	5.3
506			19.0		10.82	8.41	4.88
507			20.6		11.68	8.92	4.52
508			22.4		12.47	9.63	4.06
509			23.9		13.34	10.11	3.82
510			25.4		14.20	10.59	3.59
511			28.4		15.92	11.58	3.20
512			31.8		17.91	12.52	2.90
513			35.0		19.89	13.51	2.64
514			38.1		21.64	14.48	2.43
515			44.4		25.04	17.28	1.96
516			50.8		28.49	19.43	1.71
517	7.62	1.0	9.6	43.7	6.34	5.87	13.2
518			11.2		7.20	6.43	11.0
519			12.7		8.06	6.99	9.4
520			14.2		8.98	7.56	8.3
521			15.8		9.78	8.12	7.3
522			17.5		10.79	8.78	6.5
523			19.0		11.65	9.34	5.9
524			20.6		12.51	9.90	5.4
525			22.4		13.51	10.56	4.96
526			23.9		14.38	11.12	4.60
527			25.4		15.24	11.69	4.30
528			28.4		16.96	12.81	3.80
529			31.8		18.83	14.04	3.40
530			35.0		20.69	15.26	3.05
531			38.1		22.41	16.38	2.79
532			44.4		26.00	18.73	2.37
533			50.8		29.59	21.08	2.07
534	1.05	1.05	9.6	52.7	6.88	5.53	19.0
535			11.2		7.87	5.84	15.9
536			12.7		8.46	6.76	12.4
537			14.2		9.24	7.47	10.5
538			15.8		9.93	8.26	9.0
539			17.5		10.87	9.07	7.9
540			19.0		11.86	9.60	7.3
541			20.6		12.55	10.39	6.6
542			22.4		13.49	11.23	5.9
543			23.9		14.48	11.73	5.6
544			25.4		15.44	12.29	5.3
545			28.4		17.37	13.36	4.75
546			31.8		19.30	14.68	4.22
547			35.0		21.21	16.00	3.80
548			38.1		22.88	17.37	3.45
549			44.4		26.96	20.17	2.86
550			50.8		30.69	22.72	2.45
551			57.2		34.41	25.26	2.21

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
552	7.62	1.1	9.6	63.5	6.70	6.27	21.6
553			11.2		7.75	6.83	18.6
554			12.7		8.79	7.42	16.2
555			14.2		9.60	8.26	13.7
556			15.8		10.39	9.12	11.8
557			17.5		11.68	9.68	10.8
558			19.0		12.47	10.54	9.6
559			20.6		13.51	11.10	9.0
560			22.4		14.55	11.99	8.1
561			23.9		15.34	12.85	7.4
562			25.4		16.38	13.38	7.0
563			28.4		18.44	14.55	6.3
564			31.8		20.55	15.98	5.7
565			35.1		22.43	17.42	5.1
566			38.1		24.43	18.85	4.64
567			44.4		28.38	22.30	3.78
568			50.8		32.30	23.14	3.28
569			57.2		36.23	27.98	2.90
570	9.14	0.65	12.7	11.6	5.46	2.97	1.61
571			14.2		6.07	3.12	1.43
572			15.8		6.70	3.28	1.29
573			17.5		7.57	3.45	1.18
574			19.0		8.20	3.63	1.07
575			20.6		8.81	3.76	1.00
576			22.4		8.79	4.11	0.86
577			23.9		9.91	4.29	0.80
578			25.4		9.12	4.60	0.72
579			28.4		11.25	4.75	0.69
580			31.8		13.13	5.42	0.59
581			38.1		15.59	6.14	0.49
582			44.4		16.56	8.86	0.42
583			50.8		18.80	7.58	0.36
584			12.7		6.06	3.81	2.27
585			14.2		6.68	4.03	1.99
586			15.8		7.30	4.24	1.77
587			17.5		8.03	4.50	1.58
588			19.0		8.65	4.71	1.44
589	0.75	15.0	20.6		9.27	4.93	1.33
590			22.4		10.00	5.18	1.22
591			23.9		10.62	5.40	1.14
592			25.4		11.24	5.62	1.06
593			28.4		12.49	6.05	0.94
594			31.8		13.84	6.52	0.84
595			35.0		15.18	6.99	0.76
596			38.1		16.43	7.43	0.70
597			44.4		19.02	8.33	0.59
598			9.6		4.83	3.84	4.33
599	0.80	21.0	11.2		5.44	4.11	3.65
600			12.7		6.02	4.04	3.14
601			14.2		6.86	4.24	2.85
602			15.8		7.72	4.44	2.61
603			17.5		8.15	4.85	2.24
604			19.0		9.02	5.05	2.08

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

Sl No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
605	9.14	0.80	20.6	21.0	9.86	5.25	1.96
606			22.4		10.31	5.69	1.74
607			23.9		11.15	5.87	1.65
608			25.4		11.35	6.27	1.49
609			28.4		12.40	6.86	1.31
610			31.8		14.60	7.70	1.16
611			35.0		14.99	8.05	1.05
612		0.90	38.1	25.4	16.03	8.74	0.94
613			44.4		20.06	9.92	0.83
614			50.8		22.80	11.03	0.71
615			12.7		6.74	4.95	4.28
616			14.2		7.43	5.27	3.76
617			15.8		8.13	5.59	3.34
618			17.5		8.94	5.96	2.97
619		0.95	19.0	34.0	9.63	6.28	2.70
620			20.6		10.32	6.60	2.48
621			22.4		11.13	6.98	2.28
622			23.9		11.82	7.29	2.12
623			25.4		12.51	7.61	1.98
624			28.4		13.90	8.25	1.75
625			31.8		15.40	8.94	1.56
626			35.0		16.90	9.63	1.40
627			38.1		18.29	10.27	1.28
628			44.4		21.17	11.60	1.10
629			50.8		24.06	12.93	0.95
630			57.2		26.94	14.26	0.84
631			63.5		29.83	15.59	0.76
632	1.00	1.12	11.2	37.0	5.99	4.83	6.5
633			12.7		7.01	5.05	6.0
634			14.2		7.49	5.54	5.0
635			15.8		7.98	6.02	4.36
636			17.5		8.74	6.50	3.87
637		1.22	19.0		9.73	6.76	3.64
638			20.6		10.24	7.24	3.27
639			22.4		10.97	7.72	2.98
640			23.9		11.46	8.20	2.72
641			25.4		12.47	8.43	2.63
642		1.32	28.4	37.0	13.44	9.40	2.26
643			31.8		15.19	10.13	2.05
644			35.0		16.43	11.10	1.82
645			38.1		19.43	11.81	1.68
646			44.4		22.33	13.36	1.45
647			50.8		25.38	14.92	1.26
648			57.2		28.42	16.48	1.12
649		1.40	63.6		31.47	18.05	1.00
650			11.2		6.58	5.53	8.0
651			12.7		7.34	5.94	6.9
652			14.2		8.09	6.36	6.0
653			15.8		8.85	6.77	5.4
654			17.5		9.74	7.25	4.75
655			19.0		10.49	7.67	4.32
656		1.50	20.6		11.25	8.08	3.97
657			22.4		12.14	8.56	3.60
658			23.9		12.89	8.98	3.37
659			25.4		13.65	9.39	3.15

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

Sl No.	D_o mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
660			28.4		15.17	10.22	2.78
661			31.8		16.81	11.11	2.48
662			35.0		18.45	12.01	2.21
663			38.1		19.97	12.84	2.04
664		1.00	44.4	37.0	23.12	14.56	1.74
665			50.8		26.28	16.28	1.51
666			57.2		29.44	18.01	1.33
667			63.5		32.60	19.73	1.20
668			11.2		6.81	5.31	10.2
669			12.7		7.44	5.87	8.4
670			14.2		8.08	6.40	7.2
671			15.8		9.17	6.65	6.8
672			17.5		10.06	7.21	6.0
673			19.0		10.72	7.64	5.4
674			20.6		11.35	8.28	4.82
675			22.4		12.27	8.79	4.41
676			23.9		12.90	9.35	4.04
677		1.05	25.4	44.5	13.56	9.86	3.76
678			28.4		14.86	10.92	3.28
679			31.8		16.84	11.76	2.98
680			35.0		18.82	12.57	2.72
681			38.1		20.55	13.34	2.54
682			44.4		23.93	15.78	2.07
683			50.8		27.20	17.76	1.79
684			57.2		30.47	19.55	1.59
685			63.5		33.74	21.44	1.42
686			11.2		7.29	5.69	13.8
687			12.7		8.03	6.27	11.5
688			14.2		8.76	6.86	9.8
689			15.8		9.50	7.42	8.6
690			17.5		10.52	7.98	7.7
691			19.0		11.25	8.56	6.9
692			20.6		11.99	9.12	6.3
693			22.4		13.00	9.70	5.7
694			23.9		13.74	10.26	5.3
695		1.10	25.4	53.7	14.48	10.84	4.93
696			28.4		15.98	11.99	4.30
697			31.8		17.73	13.11	3.83
698			35.0		19.45	14.27	3.45
699			38.1		20.96	15.42	3.14
700			44.4		25.15	17.62	2.66
701			50.8		28.59	19.75	2.32
702			57.2		23.03	21.89	2.05
703			63.5		35.47	24.03	1.83
704			12.7		7.40	6.11	7.9
705			14.2		8.16	6.52	6.9
706			15.8		8.91	6.94	6.4
707			17.5		9.80	7.42	5.4
708		9.91	19.0		10.55	7.83	4.94
709			20.6	42.0	11.31	8.24	4.53
710			22.4		12.19	8.72	4.14
711			23.9		13.03	9.12	3.87
712			25.4		13.70	9.54	3.59
713			28.4		15.22	10.36	3.18

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
714	1.10	1.10	31.8	42.0	16.85	11.25	2.82
715			35.0		18.49	12.14	2.54
716			38.1		20.00	12.97	2.32
717			44.4		23.15	14.68	1.95
718	9.91	1.20	12.7	53.7	7.85	6.86	12.8
719			14.2		8.65	7.34	9.6
720			15.8		9.46	7.83	8.6
721			17.5		10.40	8.39	7.6
722			19.0		11.21	8.88	6.9
723			20.6		12.01	9.36	6.3
724			22.4		12.96	9.93	5.7
725			23.9		13.76	10.41	5.3
726			25.4		14.57	10.90	4.97
727			28.4		16.18	11.86	4.38
728	0.95	0.95	31.8	29.4	17.93	12.91	3.89
729			35.0		19.68	13.96	3.50
730			38.1		21.29	14.93	3.20
731			44.4		24.65	16.95	2.72
732			12.7		5.08	4.37	3.86
733			15.9		6.0	4.93	3.15
734			19.0		7.62	5.66	2.54
735			22.4		8.76	6.25	2.19
736			25.4		10.16	6.83	1.92
737			31.8		12.06	8.28	1.49
738	1.05	1.05	38.1	39.6	11.79	9.45	1.26
739			44.4		20.52	10.74	1.16
740			12.7		6.04	4.83	5.9
741			15.9		7.80	5.41	4.9
742			19.0		8.76	6.30	3.85
743			22.4		10.03	7.11	3.24
744			25.4		11.30	7.87	2.80
745			31.8		14.35	9.22	2.29
746			38.1		16.51	10.90	1.84
747			44.4		21.83	12.74	1.62
748			50.8		24.79	14.17	1.41
749	10.67	1.10	12.7	46.6	6.50	5.44	7.4
750			15.9		8.00	6.20	5.9
751			19.0		9.14	7.21	4.72
752			22.4		10.67	8.08	4.03
753			25.4		12.08	8.94	3.89
754			31.8		15.11	10.62	2.8
755			38.1		17.53	12.52	2.27
756			12.7		7.87	6.93	16.6
757			15.9		9.78	8.03	13.1
758			19.0		11.43	9.14	10.8
759	1.4	1.4	22.4	80	13.41	10.36	9.1
760			25.4		15.21	11.53	7.9
761			31.8		18.67	14.05	6.1
762			38.1		22.35	16.38	5.1
763			44.4		26.35	19.61	4.30
764			50.8		29.94	21.96	3.72
765			57.2		32.77	24.32	3.28
766			63.5		36.32	26.67	2.90

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

Sl No.	D_o mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
767	11.56	1.00	12.7	27.6	6.54	4.76	4.48
768			15.9		7.83	5.27	3.49
769			19.0		9.24	5.62	2.82
770			22.4		10.64	6.37	2.36
771			25.4		11.94	6.88	2.05
772		1.20	31.8	44.40	14.63	7.94	1.62
773			38.1		17.33	8.99	1.33
774			44.4		20.03	10.05	1.13
775			12.7		7.21	5.91	8.0
776			15.9		8.64	6.62	6.2
777		0.95	19.0	26.7	10.20	7.39	4.95
778			22.4		11.75	8.16	4.14
779			25.4		13.18	8.86	3.59
780			31.8		16.17	10.34	2.81
781			38.1		19.16	11.62	2.32
782			44.4		22.14	13.29	1.97
783	12.19	1.05	12.7	34.6	5.08	3.66	3.50
784			15.9		5.97	4.24	2.63
785			19.0		6.86	4.70	2.19
786			22.4		7.75	5.26	1.84
787			25.4		9.40	5.59	1.67
788		1.10	31.8	41.0	11.43	6.38	1.31
789			38.1		12.70	7.75	1.05
790			44.4		19.29	8.95	0.97
791			50.8		19.20	9.85	0.84
792			12.7		5.59	4.24	4.90
793		1.30	15.9	55.6	6.48	4.93	3.68
794			19.0		8.00	5.41	3.15
795			22.45		9.02	6.07	2.63
796			25.4		10.16	6.68	2.28
797			31.8		11.94	8.05	1.74
798			38.1		14.73	9.09	1.49
799			44.4		20.36	10.61	1.34
800			50.8		23.10	11.72	1.17
801			57.2		23.57	12.83	1.03
802			12.70		6.02	4.70	6.1
803		1.30	15.9	55.6	7.49	5.31	4.90
804			19.0		8.38	6.15	3.85
805			22.4		9.91	6.76	3.32
806			25.4		11.68	7.29	2.98
807			31.8		13.84	8.84	2.27
808			38.1		16.89	10.03	1.92
809			44.4		21.22	11.92	1.69
810			50.8		24.07	13.20	1.47
811			57.2		26.92	14.48	1.29
812			63.5		28.32	15.76	1.17
813			69.8		31.04	17.04	1.05
814			76.2		33.71	18.31	0.96
815			12.70		7.52	6.49	10.7
816			15.9		9.01	7.27	8.3

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
817	1.30		19.0	55.6	10.62	8.12	6.6
818			22.4		12.23	8.97	5.5
819			25.4		13.71	9.76	4.76
820			31.8		16.81	11.39	7.73
821			38.1		19.90	13.02	3.06
822			44.4		23.00	14.66	2.55
823			50.8		26.10	16.29	2.25
824			57.2		29.19	17.83	1.99
825			63.5		32.29	19.56	1.78
826			12.7		6.98	6.25	12.6
827	1.40		15.9	72.0	8.51	7.24	9.8
828			19.0		10.26	8.10	8.2
829			22.4		11.43	9.35	6.7
830			25.4		13.59	10.93	6.1
831			31.8		16.51	12.04	4.72
832			38.1		19.43	14.15	3.85
833			44.4		24.23	16.54	3.39
834			50.8		27.50	18.42	2.94
835			57.2		30.76	20.31	2.60
836			63.5		34.05	22.19	2.33
837	1.50		12.7	83.4	8.26	7.76	12.8
838			15.8		9.91	8.78	14.3
839			19.0		11.70	9.90	11.3
840			25.4		15.14	12.03	8.1
841			31.8		18.58	14.17	6.3
842			38.1		22.03	16.30	5.2
843			44.4		25.47	18.44	4.40
844			50.8		28.91	20.57	3.82
845			57.2		32.35	22.71	3.36
846			63.5		35.80	24.85	3.01
847	1.60		12.7	102.3	7.82	7.52	21.0
848			15.9		9.73	8.69	16.6
849			19.0		11.56	9.86	13.7
850			22.4		13.34	11.07	11.5
851			25.4		15.11	12.32	10.0
852			31.8		18.80	14.78	7.9
853			38.1		22.73	16.89	6.6
854			44.4		26.71	20.33	5.6
855			50.8		30.32	22.72	4.88
856			57.2		33.94	25.12	4.30
857	15.24	1.25	63.5	37.4	37.56	27.51	3.86
858			69.8		40.56	29.90	3.49
859			76.2		44.12	32.29	3.19
860	15.24	1.25	15.8	37.4	8.12	5.94	4.90
861			19.0		9.52	6.49	3.92
862			25.4		12.22	7.54	2.84
863			31.8		14.92	8.60	2.22
864			38.1		17.61	9.65	1.82
865			44.4		20.31	10.71	1.55
866			50.8		23.01	11.76	1.34
867			57.2		25.70	12.82	1.19
868			63.5		28.40	13.88	1.07

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

Sl No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
869	1.40	1.40	15.8	53.3	9.25	5.74	7.2
870			19.0		9.78	6.38	5.8
871			22.4		11.43	7.01	4.90
872			25.4		13.78	7.72	4.20
873			31.8		14.73	9.37	3.15
874			38.2		17.78	10.67	2.63
875			44.4		21.74	12.93	2.28
876			50.8		24.63	14.26	1.97
877			57.2		27.51	15.60	1.75
878			63.5		30.40	16.93	1.56
879	1.50	1.50	15.9	63.8	9.07	7.56	9.4
880			19.0		10.64	8.36	7.5
881			22.4		12.21	9.15	6.2
882			25.4		13.66	9.89	5.3
883			31.8		16.69	11.42	4.17
884			38.1		19.71	12.94	3.41
885			44.4		23.73	14.47	2.90
886			50.8		25.76	16.00	2.51
887			57.2		28.78	17.53	2.22
888			63.5		31.80	19.06	1.98
889	1.60	1.60	15.9	80.0	8.51	7.11	10.9
890			19.0		10.16	7.98	8.9
891			22.4		11.81	8.71	7.7
892			25.4		13.34	9.60	6.7
893			31.8		17.02	11.05	5.4
894			38.1		19.05	13.36	4.20
895			44.4		23.75	16.05	3.65
896			50.8		26.91	17.78	3.16
897			57.2		30.07	19.51	2.78
898			63.5		33.24	21.24	2.49
899	1.70	1.70	15.9	93.5	9.14	7.62	14.0
900			19.0		10.92	8.53	11.6
901			22.4		11.56	10.18	8.7
902			25.4		13.46	10.92	7.9
903			31.8		16.89	12.83	6.3
904			38.1		19.81	15.09	5.1
905			44.4		21.08	18.16	4.03
906			50.8		28.08	19.57	3.94
907			57.2		31.39	21.51	3.47
908			63.5		34.69	23.43	3.11
909	1.80	1.80	19.0	106.7	11.30	10.06	13.7
910			22.4		13.21	11.00	11.9
911			25.4		14.35	12.75	9.7
912			31.8		18.03	14.76	7.9
913			38.1		21.08	17.55	6.3
914			44.4		24.13	20.34	5.3
915			50.8		28.96	21.54	4.90
916			57.2		33.04	24.03	4.53
917			63.5		36.52	26.23	4.05
918			69.8		40.67	28.44	3.66
919			76.2		44.25	30.64	3.35
920	18.29	1.40	19.0	44.5	8.00	5.61	4.03
921			22.4		9.52	6.04	3.50
922			25.4		11.68	6.30	3.24

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

SI No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
923	1.40	1.40	31.8	44.5	14.73	7.14	2.63
924			38.1		16.00	8.45	2.01
925			44.4		17.02	9.86	1.61
926			50.8		20.83	10.44	1.49
927			57.2		25.00	12.25	1.35
928			63.5		27.82	13.19	1.22
929			19.0	62.3	8.26	7.21	5.8
930			22.4		9.52	7.95	4.90
931			25.4		10.67	9.74	4.20
932			31.8		12.45	10.39	3.24
933			38.1		14.48	12.06	2.63
934			44.4		17.27	13.44	2.28
935			50.8		18.54	15.29	1.92
936			57.2		27.21	15.36	2.12
937			63.5		30.03	16.60	1.89
938	18.29	1.60	19.0	69.4	10.45	8.23	8.0
939			22.4		11.94	8.92	6.7
940			25.4		13.33	9.55	5.7
941			31.8		16.21	10.88	4.45
942			38.1		19.09	12.20	3.65
943			44.4		21.97	13.52	3.08
944			50.8		24.85	14.84	2.66
945			57.2		27.73	16.17	2.35
946			63.5		30.61	17.49	2.11
947			19.0	80.0	9.91	7.09	8.8
948			22.4		10.80	8.00	7.0
949			25.4		11.43	8.99	5.8
950			31.8		14.73	10.24	4.73
951			38.1		17.27	11.75	3.86
952			44.4		19.05	13.66	3.15
953			50.8		21.59	15.32	2.72
954			57.2		23.26	16.99	2.61
955			63.5		31.20	18.59	2.33
956			76.2		37.07	21.20	1.92
957	21.59	1.80	22.4	93.5	11.05	9.27	8.4
958			25.4		12.70	10.08	7.4
959			31.8		16.51	11.38	6.1
960			38.1		17.78	14.07	4.55
961			44.4		20.57	15.95	3.76
962			50.8		24.13	17.20	3.50
963			57.2		29.62	19.08	3.34
964			63.5		32.70	20.69	2.99
965			69.8		35.78	22.30	2.71
966			76.2		38.86	23.92	2.47
967			82.6		41.38	25.53	2.27
968			88.9		44.42	27.14	2.10
969			22.4	48.6	12.30	8.04	5.2
970			25.4		14.49	8.67	4.46
971			31.8		17.69	9.94	3.46
972			38.1		20.88	11.20	2.82
973			50.8		27.27	13.72	2.07
974		1.90	22.4	61.6	13.45	9.02	7.0
975		25.4	25.4		15.12	9.76	6.0

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING—*Contd*

Sl No.	D_e mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
976	21.59	1.90	31.8	61.6	18.46	11.25	4.54
977			38.1		21.76	12.73	3.78
978			50.8		28.46	15.70	2.76
979		2.0	22.4	79.3	14.11	10.16	9.8
980			25.4		15.86	11.04	8.3
981			31.8		19.36	12.80	6.4
982			38.1		22.87	14.56	5.2
983			50.8		29.87	18.08	3.78
984		2.1	22.4	90.6	14.48	10.81	11.7
985			25.4		16.28	11.77	9.9
986			31.8		19.88	13.69	7.6
987			38.1		23.49	15.61	6.2
988			50.8		30.69	19.45	4.51
989	24.77	1.90	57.2	54.0	34.30	21.37	3.97
990			63.5		37.90	23.29	3.54
991			69.8		41.50	25.21	3.20
992			76.2		45.10	27.13	2.91
993			82.6		48.71	29.05	2.68
994			88.9		52.31	30.96	2.48
995		2.1	22.4	79.5	12.86	8.06	5.8
996			25.4		14.43	8.64	4.92
997			31.8		17.55	9.79	3.80
998			38.1		20.68	10.95	3.10
999			50.8		26.94	13.26	2.27
1000	24.77	2.1	22.4	99.0	13.77	9.67	9.4
1001			25.4		15.45	10.43	8.0
1002			31.8		18.80	11.94	6.2
1003			38.1		22.15	13.46	5.0
1004			50.8		28.86	16.49	3.63
1005		2.25	22.4	111.5	14.35	10.70	12.6
1006			25.4		16.10	11.58	10.7
1007			31.8		19.61	13.33	8.3
1008			38.1		23.11	15.09	6.6
1009			50.8		30.11	18.60	4.80
1010	27.94	2.40	22.4	70.9	14.68	11.28	14.8
1011			25.4		16.48	12.23	12.5
1012			31.8		20.07	14.13	9.6
1013			38.1		23.66	16.02	7.7
1014			50.8		30.83	19.82	5.6
1015		2.1	22	99.5	13.25	8.83	7.9
1016			25		14.81	9.44	6.7
1017			32		18.00	10.66	5.2
1018			38		21.17	11.87	4.18
1019			51		27.51	14.31	3.04
1020		2.4	22	127.9	14.08	10.31	12.2
1021			25		15.77	11.08	10.3
1022			32		19.13	12.62	7.9
1023			38		22.50	14.16	6.4
1024			51		29.24	17.25	4.62
1025	2.6	2.6	22	127.9	14.76	11.51	17.1
1026			25		16.33	12.42	14.4
1027			32		20.07	14.24	10.9

(Continued)

TABLE 1 DIMENSIONS OF COMPRESSION SPRING — *Contd*

SI No.	D_o mm	d mm	L_o mm	F_n N	L_n mm	L_c mm	R N/mm
1028			38	127.9	23.61	16.06	8.8
1029			51		30.69	19.70	6.4
1030			22		15.27	12.43	22.01
1031			25		17.11	14.45	18.4
1032	27.74	2.8	32	152.8	20.79	15.49	14.0
1033			38		24.47	17.53	11.2
1034			51		31.83	25.62	8.0
1035			22		13.62	9.57	10.4
1036			25		15.22	10.20	8.8
1037		2.4	32	89.9	18.42	11.47	6.5
1038			38		21.62	12.74	5.5
1039			51		28.02	15.28	3.94
1040			22		14.24	10.69	14.5
1041			25		15.92	11.44	12.2
1042	31.12	2.6	32	115.3	19.27	12.95	9.2
1043			38		22.62	14.46	7.5
1044			51		29.32	17.49	5.4
1045			22		14.73	11.55	18.4
1046			25		16.46	12.41	15.5
1047		2.8	32	138.0	19.93	14.11	11.7
1048			38		23.40	15.82	9.4
1049			51		30.34	19.23	6.7
1050			22		15.60	13.13	28.2
1051			25		17.45	14.17	23.5
1052		3.2	32	187.0	21.15	16.24	17.6
1053			38		24.85	18.32	14.1
1054			51		32.35	22.47	10.1

EXPLANATORY NOTE

This standard is one of the series of standards on design calculation and specifications of helical coiled springs. Other standards in this series are:

- a) IS : 7906 (Part 1)-1976 Helical compression springs: Part 1 Design and calculation for springs made from circular section wire and bar,
- b) IS : 7906 (Part 2)-1975 Helical compression springs: Part 2 Specification for cold coiled springs made from circular section wire and bar,
- c) IS : 7906 (Part 3)-1975 Helical compression springs: Part 3 Data sheet for springs made from circular section wire and bar,
- d) IS : 7906 (Part 5)-1979 Helical compression springs: Part 5 Hot coiled springs made from circular section bar,
- e) IS : 7906 (Part 6)-1978 Helical compression springs: Part 6 Design and calculation for springs made from rectangular section bar steel,
- f) IS : 7907 (Part 1)-1975 Helical extension springs: Part 1 Design and calculation for springs made from circular section wire and bar,
- g) IS : 7907 (Part 2)-1976 Helical extension springs: Part 2 Specification for cold coiled springs made from circular section wire and bar,
- h) IS : 7907 (Part 3)-1975 Helical extension springs: Part 3 Data sheet for specifications for springs made from circular section wire and bar, and
- j) IS : 7907 (Part 4)-1975 Helical extension springs: Part 4 Selection of standard cold coiled springs made from circular section wire and bar.

This standard aims at rationalization of various sizes of compression springs eliminating the unnecessary sizes and retaining those most commonly used in the industry. This standard is expected to be of considerable help to the spring designer who can choose the spring required by him from the list. Some of the most commonly used springs may be available as standard springs from stocks of spring manufacturers.